

WHAT IS CLAIMED IS:

1. A method of improving defect detection accuracy of an electrode array testing system, wherein the electrode array defines a plurality of pixels and wherein the electrode array testing system determines if a pixel is defective based on at least one thresholding parameter, comprising:

defining a critical number of defects;

comparing a number of defects reported by the electrode array testing system (reported defects) to the critical number of defects; and

adjusting the at least one thresholding parameter if the number of reported defects is greater than the critical number of defects.

2. The method of claim 1, wherein the at least one thresholding parameter is adjusted until the number of reported defects is less than or equal to the critical number of defects.

3. The method of claim 1, wherein the at least one thresholding parameter is adjusted until the number of reported defects is less than or equal to the critical number of defects or until the at least one thresholding parameter reaches a predetermined maximum value.

4. The method of claim 2, wherein the at least one thresholding parameter is

adjusted by:

incrementally adjusting the at least one thresholding parameter by a first increment value until the number of reported defects is less than the critical number of defects to yield a first thresholding parameter value;

subtracting one increment value from the first thresholding parameter value to yield a second thresholding parameter value; and

incrementally adjusting the second thresholding parameter value by a second increment value until the number of reported defects is less than the critical number of defects to yield an final thresholding parameter value;

wherein the second increment value is smaller than the first increment value.

5. The method of claim 1, wherein the critical number of defects correspond to a number of defects at which a repair attempt is not made.

6. The method of claim 1, further comprising alerting a cell and/or module inspection station if the number of reported defects is greater than the critical number of defects.

7. A computer-readable medium storing a program for improving defect detection accuracy of an electrode array testing system, wherein the electrode array defines a plurality of pixels and wherein the electrode array testing system determines if a pixel is

defective based on at least one thresholding parameter, said program comprising:

    a first code section which compares a number of defects reported by the electrode array testing system (reported defects) to a predetermined critical number of defects; and

    a second code section which adjusts the at least one thresholding parameter if the number of reported defects is greater than the critical number of defects.

8. The computer-readable medium of claim 7, wherein the second code section adjusts the at least one thresholding parameter until the number of reported defects is less than or equal to the critical number of defects.

9. The computer-readable medium of claim 7, wherein the second code section adjusts the at least one thresholding parameter until the number of reported defects is less than or equal to the critical number of defects or until the at least one thresholding parameter reaches a predetermined maximum value.

10. The computer-readable medium of claim 8, wherein the second code section comprises:

    a first code subsection that incrementally adjusts the at least one thresholding parameter by a first increment value until the number of reported defects is less than the critical number of defects to yield a first thresholding parameter value;

a second code subsection that subtracts one increment value from the first thresholding parameter value to yield a second thresholding parameter value; and

    a third code subsection that incrementally adjusts the second thresholding parameter value by a second increment value until the number of reported defects is less than the critical number of defects to yield an final thresholding parameter value;

    wherein the second increment value is smaller than the first increment value.

11. The computer-readable medium of claim 7, wherein the critical number of defects correspond to a number of defects at which a repair attempt is not made.

12. The computer-readable medium of claim 7, further comprising a third code section that alerts a cell and/or module inspection station if the number of reported defects is greater than the critical number of defects.